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EXAMINER

VU, PHUONG T

ART UNIT PAPER NUMBER

2841

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,262

Applicant(s)

BAKER, JOHN W.

Examiner

Phuong T. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-28 is/are allowed.
- 6) ☒ Claim(s) 1-5, 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7 May 2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 29-36, 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Cloonan et al. (US 6,449,249 B1). Regarding claim 29, the reference discloses a telecommunications system inherently comprising a housing. The system is comprised of physical components that would need to be provided in a housing to enclose and protect the components. The system also comprises a backplane 425 which would be disposed within the housing and is adapted to receive a plurality of cards for 401, 402, 403, 410, 411 providing services to a plurality of subscribers and wherein the housing may receive an adaptive module (one of 430, 435, 440, 445, 450) to communicatively couple to one or more of the plurality of cards in the housing to add redundancy to the telecommunications system. It is noted that it has been held that the recitation that an element is "adapted to" or "for" performing a function is not a positive limitation but only

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requires the ability to so perform. The housing of the system may be considered a non-redundant cable modem termination system housing as the housing may be used as a housing for any number of electronic systems, including a non-redundant cable modem termination system.

Regarding claim 30, the module may engage a rear panel of the housing. Any panel may be considered a rear panel relative to another panel as the word "rear" is a relative directional term.

Regarding claim 31, the module (one of 435, 440, 450) includes a relay/switch and the plurality of cards include at least one primary 402 and at least one redundant card 401, the relay/switch selectively routes signals between the at least one redundant card 401 and the inputs and outputs associated with the at least one primary card 402 when the at least one primary card fails.

Regarding claim 32, the plurality of cards includes a plurality of paired primary and secondary cards, (first primary/secondary pair 402, 401 and second primary/secondary pair 411, 410) further wherein at least one of the primary cards is used as a redundant primary card as it has the same circuitry as the primary card, and a relay/switch that redirects signals between the redundant primary card and a secondary card associated with a failed primary card.

Regarding claim 33, the reference discloses a telecommunications system inherently comprising a housing. The system also comprises a backplane 425 which would be disposed in the housing and is adapted to receive a plurality of electronic modules 401, 402, 403, 410, 411 each electronic module associated with inputs and outputs for providing services to a plurality of subscribers,

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wherein the housing is adapted to receive an adaptive module (one of 430, 435, 440, 445, 450) to selectively communicatively couple to the plurality of electronic modules in the housing and wherein the adaptation module would be inherently received in the housing and, one of the electronic modules is designated as a back-up electronic module 401 or 410 and wherein the adaptive module selectively routes signals between the back-up electronic module and the inputs and outputs associated with a primary electronic module (one of 402, 403, 411) upon failure of the primary electronic module, wherein the primary electronic module is one of the plurality of electronic modules.

Regarding claim 34, the adaptation module (one of 435, 440, 450) comprises a switch.

Regarding claim 35, the plurality of electronic modules is associated with a second plurality of electronic modules (one of 430, 435, 440, 445, 450 not including the module specified as the above noted adaptation module) to provide inputs and outputs for the plurality of electronic modules.

Regarding claim 36, the reference teaches providing redundancy in a telecommunication system, the system inherently comprising a housing. The method comprising providing a housing having a plurality of electronic modules 402, 403, 411 designed to operate in a non-redundant configuration, attaching an adaptive module (comprising 410, 401 and their respective switching card), where 401 and its switching card selectively communicates with the plurality of electronic modules 402, 403 and, designating one of the modules 410 and its

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respective switching card as a redundant electronic module to back-up the remaining electronic modules 411 in a redundant configuration.

Regarding claim 38, the reference discloses a telecommunications system inherently comprising a housing. The system also comprises a backplane 425 inherently disposed within the housing and adapted to receive a plurality of cards 402, 403 for providing services to a plurality of subscribers and wherein the housing is adapted to receive a self-contained adaptive module 401 to plug into the housing to add redundancy to the telecommunications equipment.

3. Claims 29, 30, 33, 36, 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Czerwiec et al. (US 6,314,102 B1). Regarding claim 29, the reference discloses a telecommunications system comprising a housing (see figure 1B), a backplane disposed within the housing and adapted to receive a plurality of cards (plurality of cards LT, NT - of 1 of 2) for providing services to a plurality of subscribers and wherein the housing may receive an adaptive module (NT - 2 of 2) to communicatively couple to one or more of the plurality of cards in the housing to add redundancy to the telecommunications system.

Regarding claim 30, the module is adapted to engage a rear panel of the housing.

Regarding claims 33,36,38 please refer to the above rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cloonan et al. (US 6,449,249B1) in view of Cassanova et al. (US 5,031,075). Regarding claim 1, Cloonan discloses a telecommunications system adaptive module inherently comprising a housing. The system is comprised of physical components that would need to be provided in a housing to enclose and to protect the components. The system also comprises a backplane 425 which would be disposed within the housing, an active first electronic module 402 disposed within the housing and electrically connected to the backplane, the active first electronic module electrically connectable to an active second electronic module 411 disposed within the housing for communicating with the active second electronic module, a backup first electronic module 410 disposed within the housing and electrically connected to the backplane, the backup first electronic module electrically connectable to a backup second electronic module 401 disposed within the housing for communicating with the backup second module when there is a failure within the active second electronic module and a switch/relay 445 disposed within the card cage and electrically connected to the backplane, the switch/relay adapted to enable communications between the active first electronic module and the backup second electronic module when there is a failure within the active second electronic module. Cloonan is silent about providing a housing or a housing with a card cage but, as mentioned above, a housing would be inherently required. Those skilled in the art would

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recognize that the most common configuration of mounting electronic modules in a housing is through use of a card cage provided in the housing for mounting the electronic components in an efficiently, orderly, and easily accessible configuration as shown in the Cassanova reference. Cassanova is relied upon solely to show a housing comprising a card cage. The housing of the system may be considered a non-redundant cable modem termination system housing as the housing may be used as a housing for any number of electronic systems, including a non-redundant cable modem termination system.

Regarding claim 2, the active first electronic module necessarily comprises a plurality of connectors which mate with the backplane and may be connectable to remote equipment.

Regarding claim 3, the switch/relay comprises a plurality of circuit boards.

Regarding claim 4-5, the backplane would be attachable to a housing and disposed within the card cage.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Czerwiec et al. (US 6,314,102 B1). Regarding claim 37, the reference teaches that the switch may be placed elsewhere in the system. It would have been obvious to those skilled in the art at the time the invention was made to position the switch exterior to the backplane of the housing to provide easy access to the switch.

Allowable Subject Matter

7. Claims 6-28 are allowed.

Response to Arguments

8. Applicant's arguments filed April 6, 2004 have been fully considered. In view of Applicant's amendments, the previous 35 USC 112 rejections have been withdrawn.

Regarding claim 1, Applicant has added the limitation that the housing is a non-redundant cable modem termination system housing. However, it is noted that there is nothing in the structure of the housing to preclude it from being such a housing. In fact, the housing of the prior art contains all the recited physical components of Applicant's claimed housing such as the backplane, the active first electronic module, the active second electronic module, the backup first electronic module, the backup second electronic module, and the switch/relay. The housing shown in the prior art reference, and other housings, may be used as housings for non-redundant cable modem termination systems. Furthermore, it seems that what makes a housing a nonredundant cable modem termination system housing would be the components of a cable modem termination system provided inside the housing or the capability of the housing to receive such components. Furthermore, the recited components of the claimed adaptive module do not necessarily dictate a cable modem termination system. Therefore, as mentioned above, the housing may be considered a housing for a non-redundant cable termination system.

Regarding claim 29, 33, 38, Applicant has added the limitation that the module is an "adaptive module" as shown in Figures 1-2 and described in the specification at paragraph 12. However, the specification does not provide a

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sufficient definition for the terminology "adaptive module". In paragraph 12, the "adaptive modules" are identified as reference numerals 104 in the noted figures but are not defined as noted by Applicant. There is however, a description of the function of the secondary electronic modules 112₁, 112₂ and primary electronic modules 108₁, 108₂ states that these modules transmit and receive signals. It is argued by Applicant that the switching cards of Cloonan cannot be considered adaptive modules. In response to Applicant's argument that the reference fails to show these features of Applicant's invention, it is noted that the features upon which Applicant relies are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, even if the specification was relied upon to define the adaptive modules by their function of transmitting and receiving signals, the interpretation that the switching cards may be considered "adaptive modules" is fully supported as these modules transmit and receive signals.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (571) 272-2111. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (571) 272-2107. The

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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PTVu
Patent Examiner

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.